

In re application: Hwang *et al.*
Filed: 07/18/2002
Response Dated 02/06/2004

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Serial No.: 10/198,528
Atty. Dkt. No. PAT021US.C2
Reply to Office action of 10/07/2003

REMARKS/ARGUMENTS

Claims 11-13, 16-17, and 20-21 are pending in this application. Claims 11-23 have been rejected. Claims 1-10 and 24-36 have previously been withdrawn; claims 11-12 and 20-21 have been amended, and claims 14-15, 18-19 and 22-23 have been canceled, to more particularly point out and distinctly claim the subject matter of the present invention. Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

On page 2 of the Office Action, the Examiner rejected claims 11-23 under 35 U.S.C. § 112(2), as being indefinite. The Examiner stated that, regarding independent claims 11 and 20, structural limitation “features” are not particularly defined.

Independent claims 11 and 20 have been amended to more particularly point out and distinctly claim the subject matter of the present invention. In particular, “anti-reflection features” has been changed to “anti-reflection means,” for reducing specular reflection of light into the active region. Thus, these claims now employ a means-plus-function element, pursuant to 35 U.S.C. 112, sixth paragraph, which states, “*An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.*” The anti-reflection means are described in the specification, including the features shown in Fig. 6. Applicant submits that it is clear that the functional limitation employed in the means plus function element of claims 11 and 20, as amended, is not indefinite. Applicant submits that the § 112(2) rejection of claims 11 and 20 is therefore moot and should be withdrawn.

Regarding dependent claims 12, 14, 15, 19, 21, and 23, the Examiner stated that the following structural limitations are not defined: “anti-reflection rows”; “triangular cross section” and “arbitrary cross-sections”. Claims 12 and 21 have been rewritten in means-plus-function format; Applicant submits that these claims, as amended, are not indefinite, without admitting they were indefinite before being amended, and that the § 112(2) rejection of claims 12 and 21 should be

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withdrawn. Claims 14, 15, 19, and 23 have been canceled, so the § 112(2) of these claims is now moot.

Regarding claim 20, the Examiner stated that Applicant failed to provide the necessary structure to obtain an array of VCSELs. The preamble of claim 20 has been amended to provide that the array shares a common substrate, as shown in Figs. 4-6. Applicant submits that claim 20, as amended, is not indefinite.

On page 3 of the Office Action, the Examiner rejected claims 11, 12, 1, 15, 19, 20, 21, and 23 under 35 U.S.C. § 102(b) as being anticipated by Kish, Jr. et al. (U.S. Pat. No. 5,837,561). The Examiner stated that Kish shows in Fig. 7 a feature on substrate 103 that redirects a portion of the laser beam in a nonparallel direction. The purpose of the "lens" feature 107 of substrate 103 in Kish is apparently to direct some of the portion of the light emitted from the back side of the VCSEL to a photodetector 105.

Applicant respectfully submits that there are several independent reasons why Kish Jr. does not anticipate the independent claims 11 and 20, as amended. First, as can be seen from inspecting Fig. 7 of Kish, the lens feature 107 is concave from the view of the laser emission. Physically, such a shape would not redirect laser emission to photodetector 105, as erroneously illustrated in Fig. 7. Rather, the concave shape would direct light emitted from VCSEL 101 back into VCSEL 101. There is no teaching in Kish that this lens structure 107 would *reduce specular reflection of light into the active region*, as clearly claimed in Applicant's independent claims 11 and 20.

Moreover, lens 107 is clearly not identical to, nor is it an equivalent of, the "anti-reflection means for reducing specular reflection" of Applicant's claimed invention. The structure supporting the anti-reflection means is, in one embodiment, the anti-reflection rows described on page 9, line 24 to page 10, line 10, and Fig. 6. Lens 107 is not identical to this structure not to equivalents thereof. *See In re Donaldson*, 16 F.3d 1189, 1193, 29 U.S.P.Q. 1845, 1848-50 (Fed.Cir.1994) ("The plain and unambiguous meaning of paragraph six is that one construing means plus function language in a claim must look to the specification and interpret that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such disclosure. Paragraph six does not state or even suggest that the PTO is exempt from this mandate Per our holding, the 'broadest reasonable interpretation' that an

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examiner may give means plus function language is that statutorily mandated in paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination.”). Accordingly, Kish Jr. does not anticipate the independent claims, as amended.

For the foregoing reasons, Applicant respectfully submits that independent claims 11 and 20 are neither anticipated, taught, nor suggested by Kish Jr. *et al.*, and are thus in condition for allowance, as are their pending dependent claims.

In view of the foregoing remarks and amendments, the pending claims, as variously amended, are believed to be in condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

The Assistant Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment which may be associated with this communication to our deposit account 50-1705.

The undersigned may be contacted for any questions.

Respectfully submitted,



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